

INSTRUCTION MANUAL

Model TSC-70P Color Scan Converter

Telereader[™]

TASC ELECTRONICS USA

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1. PREFACE

The TELEREADER Model TSC-70 is a Digital Signal Processor based multimode color video scan converter. It is capable of transmitting and receiving high quality color images over voice communication links in as short as 32 seconds per frame.

The Model TSC-70 is a very compact stand-alone unit with an infrared remote control. It can also be controlled by a suitable computer to process and store images.

2. TSC-70P SPECIFICATIONS

Video Input : PAL
Video Output : PAL
SSTV Audio Input: 0dBs (+10 to -30dBs)
SSTV Audio Output: 0dBs or +9dBs
SSTV Mode : Robot Color: 36, 72 sec.
Scottie: S1, S2
Martin: M1, M2

COM Port : computer interface @
1200/76.8K/115K/312Kbps
Radio Port : SSTV I/O(audio),
PTT for TRX
Remote Control : All functional controls
Picture Memory : 1 frame (2 frames with an
optional memory)
Color Decoding : Digital Processing by DSP
SSTV Demodulation: Digital Processing by DSP
SSTV Modulation : Digital Processing by DSP
Power Requirement: 11 to 15VDC/250mA @12V
Dimension : 5.6"W x 1.2"H x 5.6"D
(140mm W x 29mm H x 140mm D)
Weight : 18oz/500g(main unit),
2oz/60g(remote controller)
Supplied Accessory: DC power cord, video cable,
radio port connector
remote control

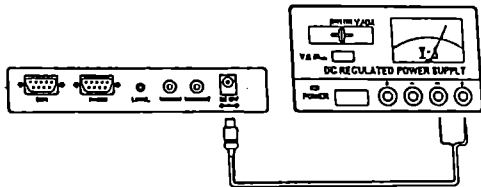
* TASC0 reserves the right to change specifications without notice.

3. INSTALLATION

The figures and tables in this section contain all of the information necessary to correctly interconnect the devices in a TASC0 color SSTV system.

DC SOURCE

11 to 15VDC with more than 300mA is required. The red wire is positive and the black wire is negative.



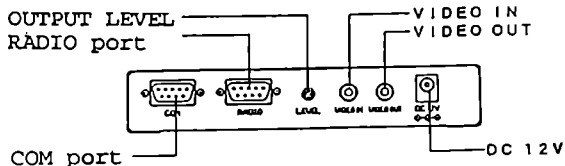
VIDEO OUTPUT

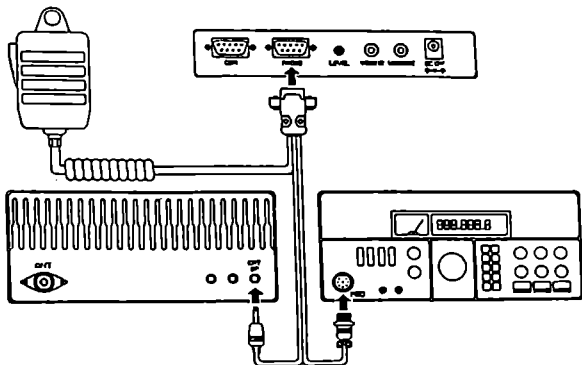
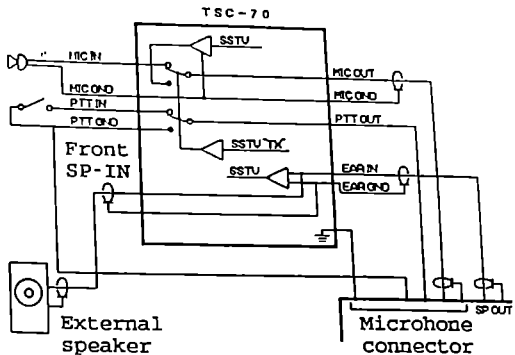
The video output port provides a signal for incoming SSTV pictures or pictures from the video input port. Connect a color video monitor to this port. A color video printer, a VCR and other video input devices may be connected to this port.

RADIO Port

The radio port has connections to a transceiver and a microphone including a push to talk line. The connection must be made according to your radio equipment. Refer to your radio's manual for microphone pin assignment, or use one of MR-70 series microphone connectors. (Available for ICOM, KENWOOD and YAESU transceivers)

PIN #	Signal Name
1	Audio input from radio's speaker output
2	Audio input from Microphone
3	Microphone ground
4	Push To Talk line from microphone
5	Ground line for pin 4
6	Ground line for pin 1
7	Push To Talk line to Transceiver
8	Audio output to radio's microphone input
9	Chassis ground





COM PORT

The COM PORT is available for a mouse or interfacing with a computer.

Two jumper pins on the circuit board has to be at proper places.

BAU 1	BAU 2	COM PORT
L	L	EB-70P interface
L	H	RS-232 for PC-9801
H	L	mouse
H	H	RS-232 for IBM PC/AT

INTERFACING A COMPUTER

TSC-70 may be controlled by a PC using either the EB-232 or the EB/PC-70, which are available as options. Some of their capabilities are:

1. All the remote control functions
2. The picture data in the TSC-70 can be saved in the special format or BMP/JPEG format.
3. The picture data in the PC can be loaded into the memory of the TSC-70.
4. A picture can be made to be 1/4 of the original size and placed at upper right, upper left, lower right, lower left or center.
5. Letters can be written on the screen using the video typewriter function.
6. Cut & paste of a picture.

EB/PC-70P/V comes with an interfacing card for a PC to save and load the video data at 312 Kbps. It takes only 7 to 8 seconds to transfer the picture data using a hard drive.

EB-232 does not require an installation of a card. It uses a serial port, RS-232, of the computer to transfer the picture data. The transfer rate is 115 Kbps with IBM PC/AT 's.

4. OPERATION

MODE

SSTV modes installed in the TSC-70s are:

36:Robot color 36 second compatible
72:Robot color 72 second compatible
M1:Martin M1 compatible
M2:Martin M2 compatible
S1:Scottie S1 compatible
S2:Scottie S2 compatible

RECEPTION

Step 1

Push the power switch. The red PWR/TUNE and the RX indicators should light up and the screen of the video monitor should be gray.

Step 2

Tune to a SSTV signal. The TSC-70 determines the mode of the signal and starts receiving the picture. The PWR/TUNE indicator becomes brighter during a reception, and the RX indicator starts flashing during the reception.

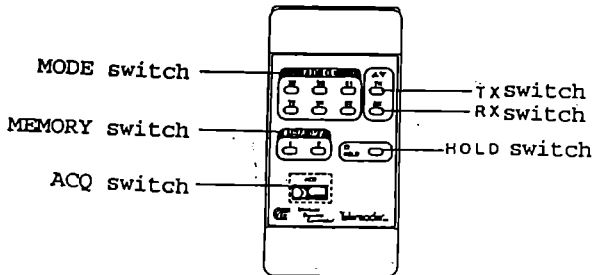
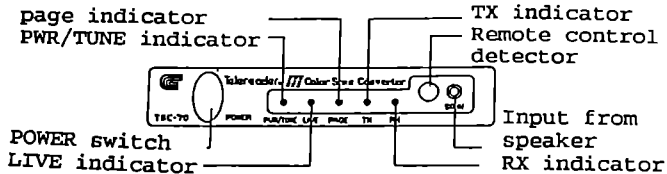


IMAGE ACQUISITION

To transmit an image, it has to be taken into the internal memory from a video source such as a video camera.

Step 1

Press the ACQ button. The red LIVE indicator lights up and the RX indicator goes off. The image from the video source is shown on the video monitor.

Step 2

Capture a image you choose by pressing the ACQ button again. The LIVE indicator goes off and the RX indicator comes on/lights up. A still picture is seen on the screen.

TRANSMISSION

The image has to be stored in the memory of the TSC-70 prior to the transmission.

Step 1

The initial mode is set to be the Robot color 36 when the power switch is turned on. Choose one of the modes from the remote control by pressing one of the buttons. This procedure is not necessary if the mode you choose is the same as the previous reception or transmission mode.

Step 2

Press TX button on the remote control. The TX indicator goes on. It goes off at the end of the transmission.

The bar on the left of the screen indicates what part of the picture is being transmitted. The transmission can be halted at any time before the end of the picture by pressing the RX button. For AVT and Scottie modes, the halting of the transmission is possible after the end of the header. The micro phone is disabled during the SSTV transmission. The level control on the back of the TSC-70 should be adjusted for the proper output level.

TASCO Electronics USA Inc. ("TASCO") warrants this product (including any accessories) against defects in material or workmanship as follows:

For a period of 6 months from the date of purchase, if this Product is determined to be defective, TASCO will repair the product at no charge.

To obtain warranty service, you must take the Product, or deliver the Product freight prepaid, in its original packaging affording an equal degree of protection, to:

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Hospitalweg 13

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This warranty does not cover customer instruction, installation, set up adjustments or signal reception problems.

This warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of, or to any part of the Product. This warranty does not cover damage due to improper operation or maintenance, connection to improper voltage supply, or attempted repair by anyone other than a facility authorized by TASCO to service the Product. This warranty does not cover consumable such as fuses or batteries. This warranty is valid for the Product purchased from TASCO Electronics USA or its authorized dealer.

SERVICE INFORMATION

For service assistance or resolution of a
service problems, call:

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